

# General Information about the Mississippi River

\*\*\*A raindrop falling in Lake Itasca would arrive at the Gulf of Mexico in about 90 days.\*\*\*

**Speed:** At the headwaters of the Mississippi, the average surface speed of the water is near 1.2 miles per hour - roughly one-third as fast as people walk.

**Length:** River length is a difficult measurement to pin down because the river channel is constantly changing. For example, staff at Itasca State Park, the Mississippi's headwaters, say the Mississippi is 2,552 miles long. The US Geologic Survey has published a number of 2,300 miles (3,705 kilometers), the EPA says it is 2,320 miles long, and the Mississippi National River and Recreation Area maintains its length at 2,350 miles.

**Width:** At Lake Itasca, the river is between 20-30 feet wide. The Mississippi is widest just downstream from its confluence with the Missouri River (near Alton, Il.) where it is nearly 1 mile across.

**Depth:** At its headwaters, the Mississippi is less than 3 feet deep. The river's deepest section is between Governor Nicholls Wharf and Algiers Point in New Orleans where it is 200 feet deep.

**Elevation:** The elevation of the Mississippi at Lake Itasca is 1,475 feet above sea level. It drops to 0 feet above sea level at the Gulf of Mexico. More than half of that drop in elevation occurs within the state of Minnesota.

**Sediment Load:** The Mississippi carries an average of 436,000 tons of sediment each day. Over the course of a year, it moves an average of 159 million tons of sediment. Averages have ranged from 1,576,000 tons per day in 1951 to 219,000 in 1988.

## Background Information:

In the 1930's, the Civilian Conservation Corps and the National Park Service collaborated with the State of Minnesota on a project that changed the headwaters area from a swampy ground to an area that now is characterized by dry ground and fully grown trees. A low dam, fill, and rocks spanning the river are in place so that visitors can walk across the Mississippi River.

**Watershed Area:** The Mississippi River Basin or Watershed drains 41% of continental United States. Thirty-one states and 2 Canadian provinces are included in the watershed. The total area drained by the watershed is between 1.2 and 1.8 million square miles.

**Water supply:** Communities up and down the river use the Mississippi to obtain fresh water and to discharge their industrial and municipal waste. We don't have good figures on water use for the whole Mississippi River Basin, but we have some clues. A January, 2000 study published by the Upper Mississippi River Conservation Committee states that close to 15 million people rely on the Mississippi River or its tributaries in just the upper half of the basin (from Cairo, Il. to Minneapolis, MN). A frequently cited figure of 18 million people using the Mississippi River Watershed for water supply comes from a 1982 study by the Upper Mississippi River Basin Committee. The Environmental Protection Agency simply says that more than 50 cities rely on the Mississippi for daily water supply.

## Background Information:

Over the centuries, the Mississippi and its tributaries have carried soil and dissolved particles from one part of the continent and deposited them in another part of the continent. The Mississippi Alluvial Plain stretches from below Cairo, Il all the way to the Gulf of Mexico, nearly 600 miles. The continental shelf ends at Baton Rouge, La. and land comprising the Mississippi Delta south of Baton Rouge has been built of soil carried by the Mississippi River. The picture on the right is of the Mississippi River Delta in the Gulf of Mexico. The reddish color is water, the rest is land--sediment deposited by the Mississippi River.

**Commerce:** For nearly 200 years agriculture has been the primary user of the basin lands, continually altering the hydrologic cycle and energy budget of the region. The value of the agricultural products and the huge agribusiness industry that has developed in the basin produces 92% of the nation's agricultural exports, 78% of the world's exports in feed grains and soybeans, and most of the livestock and hogs produced nationally. Sixty percent of all grain exported from the US is shipped via the Mississippi River through the Port of New Orleans and the Port of South Louisiana.

In measure of tonnage, the largest port in the world is located on the Mississippi River at LaPlace, La.

Shipping at the lower end of the Mississippi is focused on petroleum, iron and steel, grain, rubber, paper and wood, coffee, coal, chemicals, and edible oils.

**Volume:** At Lake Itasca, the average flow rate is 6 cubic feet per second.

At Upper St. Anthony's Falls, the northernmost Lock and Dam, the average flow rate is 12,000 cubic ft/second.

At New Orleans, the average flow rate is 600,000 cubic feet per second.

**Wildlife:** The Mississippi River and its floodplain are home to a diverse population of living things

- At least 260 species of fishes, 25% of all fish species in North America;
- Forty percent of the nation's migratory waterfowl use the river corridor during their Spring and Fall migration;
- Sixty percent of all North American birds (326 species) use the Mississippi River Basin as their migratory flyway;
- From Cairo, Il, upstream to Lake Itasca, there are 38 documented species of mussel. On the Lower Mississippi, there may be as many as 60 separate species of mussels;
- The Upper Mississippi is host to more than 50 species of mammals;
- At least 145 species of amphibians and reptiles inhabit the Upper Mississippi River environs.

#### Background Information:

To move goods up and down the Mississippi, the U.S. Army Corps of Engineers maintains a 9-foot shipping channel from Baton Rouge, La. to Minneapolis, MN. From Baton Rouge past New Orleans to Head of Passes, a 45 foot channel is maintained to allow ocean-going vessels access to ports as far upstream as Baton Rouge.

#### Background Information:

There are 7.489 gallons of water in a cubic foot.

One cubic foot of water weighs 65.4 pounds.

A 48 foot semi-truck trailer is a 3,600 cu. ft. container.

At Itasca, it would take 10 minutes for one semi-trailer of water to flow out of the lake into the Mississippi.

At St. Anthony Falls, the equivalent of 3 semi-trailers full of water go over the falls every second.

At New Orleans, the equivalent of 166 semi-trailers of water flow past Algiers Point each second.